

# HURRICANE

## 'Tis that season, Keesler

### Katrina's message: Be ready

By Perry Jenifer

Keesler News editor

Camille? Ha!

Folks on the Mississippi Gulf Coast who survived that 1969 hurricane thought they'd seen nature's full fury.

Not even close.

Hurricane Katrina relegated Camille to a distant second place among storms that have made landfall on the Mississippi Gulf Coast.

Katrina barreled ashore Aug. 29, spreading death and destruction from New Orleans to Mobile. Sustained winds exceeded 130 mph, driving a storm surge of up to 35 feet into communities across the Mississippi coast.

Keesler received a double blow. The first came from the south as Katrina came ashore from the Gulf of Mexico. The second struck from the north as the hurricane moved inland, whipping the Back Bay of Biloxi into a frenzy that inundated Bayview Avenue and everything for blocks inland.

The base exchange and commissary were under water. The medical center basement was flooded, knocking out all power to the facility and forcing the evacuation of patients to military medical facilities elsewhere. More



Photo by Stanley Morgan

**Hurricane Katrina's rising storm surge rolls through a parking lot, flooding vehicles and buffeting Dolan Hall.**

than 1,000 family housing units were damaged beyond repair.

Basewide, Katrina hammered Keesler to the tune of nearly \$1 billion in recovery costs.

For the first time anyone could remember, the base also recorded a hurricane-related fatality. William Gibson, an 81st Services Division civilian employee, died of complications from exposure to flood waters.

Katrina brought to a devastating close a period of relative calm for the coast dating to Georges, Sept. 28, 1998.

Georges was Keesler's first hurricane in 13 years. He

packed 105-mph winds — gusting to 125 mph — 9.51 inches of rain and a surge of water from the Back Bay of Biloxi that flooded Bay Breeze Golf Course. The damage: \$26 million.

In the immediate aftermath of Georges, some facilities were unable to operate, families were forced out of base housing and three civil engineers were injured, one seriously.

It took more than three years to complete all the necessary repairs.

Georges marked the fourth consecutive decade in which Keesler felt the wrath of a major hurricane. In 1969,

there was Camille, the mother of all storms to hit the Mississippi Gulf Coast until Katrina; in 1979, it was Frederic, and in 1985, Elena. Katrina extended that unenviable string to five decades.

None of storms of the 1960s, 70s, 80s and 90s was a glancing blow that knocked you off balance temporarily, then passed on ... out of sight and out of mind. They were head-on, death and destruction-dealing collisions.

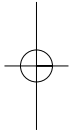
"Katrina and others have shaken Keesler over the years, yes," said Brig. Gen. Paul Capasso, 81st Training Wing commander, of the recent history of hurricanes on

the coast. "When one of these storms hits, there's no escaping that.

"While regrettable, one death and only three injuries is an outstanding record when compared to some neighboring communities. The reason our record is so good is clear — we were prepared.

"Keesler has a plan and it's a good one. It has served served the base and our people well, not only in Camille, but in Frederic, Elena, Georges and Katrina.

"Become familiar with our hurricane plan, and if the need arises, use it," the general said. "You can't go wrong."

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# Keesler's hurricane plan – how it works

A Category 2 (sustained winds of at least 96 miles per hour) or stronger hurricane has struck Keesler in each of the last five decades — Camille (1969), Fred-eric (1979), Elena (1985), Georges (1998), Ivan (2004) and Katrina (2005).

Perhaps the single greatest contributing factor to the base's record of one death and three injuries from all those storms is its five-step hurricane preparation plan. HURCON, an acronym for hurricane conditions, is the name given to the base plan. June 1, the base goes into HURCON 5, the first level of the plan.

After a "hurricane watch" is issued by the National Weather Service, the crisis action team convenes in the command post. From there, bulletins are distributed to units across the base declaring specific hurricane conditions and directing actions to be taken at each HURCON level.

Hurricane advisories, updates and other related information are available only through advisories and bulletins issued from the crisis action team.

The National Weather Service issues a "hurricane watch" at HURCON 4 or 3 and a "hurricane warning" at HURCON 2 or 1.

There are five levels of preparation for hurricanes: **HURCON 5** (also referred to as Hurricane/Tropical Storm Advisory and Preparation, or TSA). Review, update and execute checklists.

**HURCON 4** — 72 hours prior to the forecast arrival of winds of at least 50 knots (58 mph).

**HURCON 3** — 48 hours prior to the forecast arrival of winds of at least 50 knots.

**HURCON 2** — 24 hours prior to the forecast arrival of winds of at least 50 knots.

**HURCON 1** — 12 hours prior to forecast arrival of winds of at least 50 knots.

## Preparation

Complete and return to your unit disaster preparedness officer or noncommissioned officer Keesler Form 21, Shelter Intention. Update the form frequently throughout the hurricane season. The form is available on the Keesler home page.

Families are advised to develop disaster plans. For an example, go to <http://www.fema.gov/rrr/displan.shtm>.

**At HURCON 5**, as of June 1, crisis action team implements TSA and directs commanders and/or first sergeants to review TSA checklists and take appropriate actions.

**At HURCON 4**, listen to latest weather bulletins and follow instructions from unit commanders.

Off-base and base housing residents should:

Brief family members on their responsibilities. Review actions to take if sheltering is necessary.

Keep radio and television on for information on status of the storm.

Check supply of food that can be eaten without cooking.

Stock flashlights, extra batteries, camp lantern, transistor radio, special prescribed medicines and food, baby food, first aid kit, insecticides, water purification tablets, fire extinguisher, tool kit and hardware, boards for windows and plastic bags to cover any broken windows.

Tie down mobile homes and disconnect propane tanks.

Secure objects in open areas.

Fill car tanks with gasoline.

Store small boats in enclosed shelters or tie them down.

**At HURCON 3**, dorm residents should:

Store personal items in lockers and drawers.

Move furniture to walls opposite windows.

Unplug electrical equipment and turn off lights.

Close all doors.

Secure equipment, motorcycles, trash cans, signs, etc.

Stand by for briefings by unit commanders.

Plan to brace doors securely.

Stack furniture and rugs.

Have flashlights within easy reach.

Stay away from windows.

Keep in contact with duty section or squadron.

Minimize phone calls to base.

Pay particular attention to bulletins and advisories issued by base officials, and to radio and television for information and instructions.

**At HURCON 2**, make final preparations — fill jugs, bottles, etc., with drinking water. Put important personal papers or valuables in waterproof strong boxes. Everyone except mission-essential personnel and students is encouraged to evacuate.

**At HURCON 1**, mission-essential personnel and students report to their designated shelters.

## Sheltering

Mission-essential personnel and students shelter on base. All others are encouraged to evacuate.

**Only one entrance** to each shelter is open.

**People on basic** allowance for subsistence provide their own food. Although those on meal cards receive meals-ready-to-eat, they should bring extra food.

**Take non-perishable** food, baby supplies, clothes and prescription medicine for three days. Take flashlights with extra batteries, first aid kit, as much water as you can carry, books, magazines, games, cards, blankets or sleeping bags, pillows, manual can opener and portable radio with batteries. Take base and coast maps, as familiar landmarks may be gone and familiar roads closed when you leave shelters or return from evacuation. Take important documents and cash.

**Alcohol**, electrical appliances, weapons, pets and smoking aren't allowed in shelters.

**To shelter pets** off-base, call the Humane Society of South Mississippi, 863-4394, Extension 101. For information on sheltering cats and dogs on base, visit <http://www.mil.keesler.af.mil/81trw/xpo/pets.htm>. Shelter pets with three-day supply of water, food and medicine.

## Recovery

After a hurricane passes, Keesler people who evacuated contact their units for instructions. If communication with the base isn't possible, call the Air Force Personnel Center, 1-800-435-9941.

Those who shelter on base:

**Remain in shelter** until officials say you may leave.

**Military report** to duty sections. Control centers delegate recovery operations to all units.

**Don't enter** damaged buildings.

**Don't check** for gas leaks with matches.

**Don't turn** utilities on until they've been checked.

**Don't eat** or drink anything without first checking it for damage or contamination.

**Assess** and record all damage.

**Report building** damage to 81st Civil Engineering Squadron if you're in base housing, or to your insurance company if you live off-base.

**Report damaged** personal property to your insurance company.

**Make plans** for temporary lodging until repairs are made.

**Stay away** from stray animals.

**Emergency phone numbers** — fire department, 911; chaplain, 377-2111 (after hours, 377-4330); command post, 377-4330; medical center, 377-6555 or 6556; security forces, 377-3040.

**Civil Defense phone numbers** — Hancock County, 467-9226. Harrison County, 865-4002 (Gulfport), 384-7800 (Biloxi), 452-2448 (Pass Christian), 863-7292 (Long Beach), Jackson County: 769-3101 or 3111 (Pascagoula), 475-7887 (Moss Point), 875-0114 (Ocean Springs).

**Coast radio stations** — stay tuned for information and instructions on Keesler's recovery, medical care and emergency assistance for housing, clothing, food, etc.:

AM stations — 570, WVMI, Biloxi; 1130, WQFX, Biloxi-Gulfport; 1190, WBSL, Bay St. Louis; 1240, WGCM, Gulfport, 1390, WROA, Gulfport-Biloxi; 1490, WXBD, Biloxi; 1580, WZZJ, Pascagoula.

FM stations — 90.3, PRM, Biloxi; 92.5, WXOR, Ocean Springs-Biloxi-Gulfport; 93.7, WMJY, Biloxi; 94.5, WJZD, Gulfport; 96.7, WUJM, Gulfport; 97.9, WCPR, Gulfport; 99.1, WKNN, Pascagoula-Biloxi-Gulfport; 102.3, WGCM, Gulfport; 103.1, WOSM, Ocean Springs; 105.9, WXRQ, Pascagoula-Biloxi-Gulfport; 107.1, WXYK, Gulfport-Biloxi; 107.9, WZKX, Gulfport-Biloxi.

**Family assistance center** — in the aftermath of a hurricane, information on programs and services for Keesler people may be consolidated in a one-stop family assistance center.

# Now's time to review personal insurance

The time to act is now. Insurance companies won't write policies if your property is in an area under a hurricane threat.

To guarantee complete coverage, inventory household goods. Photograph expensive, hard-to-replace items and antiques. Have receipts and appraisals for expensive items. Keep this in a lock box or take it along when you evacuate or shelter.

Water damage is usually covered only if wind removes part of the roof or debris breaks windows, letting water into the house. Damage caused by flooding or rising water is covered for base housing residents.

## Flood, structural, wind damage

Off-base, flood insurance is available through the National Flood Insurance program. Rates vary depending upon where you live, and the type and date of construction of your house. People who live off-base should also view their policies for structural and wind damage coverage.

Off-base residents can also obtain insurance to cover debris removal, which applies only to roofing material or other debris, not trees or bushes.

Temporary repairs coverage reimburses the policy owner for necessary and reasonable repairs made to prevent further storm damage. Living expense insurance provides motel, food and transportation if you're forced from your home.

Consider replacement cost insurance, too. For your house, make certain the amount of insurance is adequate to pay the cost of building a new house.

You may submit claims for personal property lost, destroyed or damaged on base. However, you must contact your insurance company first. The government makes up the difference between your insurance and the depreciated value of the property, up to the maximum allowable for that particular category.

Military and civilians who live off base can't submit damage claims to the government. Base housing occupants can receive up to \$100,000 in claims payments. However, to ensure adequate coverage for replacement costs, base housing occupants are wise to invest in extra personal property or special coverage insurance. For about \$25 a month, you can buy \$30,000 worth of contents and liability coverage.

Comprehensive car insurance is also worth looking into. Most claims for damage processed by the base legal office after Hurricane Elena in 1985 were for automobiles hit by wind-blown roofing materials.

## Boats, campers, mobile homes

Only active-duty people can make claims against the government for such damage. The maximum payable for uninsured damage or loss to a vehicle on base is \$3,000. In most cases, glass and paint damage alone are going to be above that figure.

People who store boats at the base marina sign a document waiving the base's responsibility for any losses. Boats and campers in base storage areas are covered up to \$2,500 each.

The government pays mobile home owners who live in the base trailer park fair market value or the cost of repairs, whichever is less.

For more information, call the legal office, 377-3510, or the claims office, 377-3630.



## 'Disaster stress' — what it is, how to cope with it

A hurricane in the Gulf of Mexico is on a collision course with the Mississippi Gulf Coast. A scenario for stress? You bet.

"Disaster stress," as mental health experts call it, may manifest itself in a variety of ways — before and after the disaster occurs:

**Physical** — fatigue, tension, nausea.

**Emotional** — anxiety, anger, helplessness, depression.

**Mental** — forgetfulness, easily distracted, intrusive thoughts, nightmares.

**Behavioral** — increased drinking, irritability, restlessness, trouble sleeping.

**Social** — dropping out of usual activities, and after the disaster hits, avoiding the site.

These are the faces of disaster stress. Here are some ways to deal with them:

**Ask for social** and emotional support from loved ones.

**Give social** support to others.

**Don't abandon** your usual social networks, i.e., church neighborhood groups, co-workers.

**Become part** of a disaster survivor group.

**Control drinking** and pill-

## Children, pets feel stress, too

Children and even pets are also vulnerable to stress.

For children, it's important to take along favorite toys, blankets or something else they really love when the family evacuates or shelters. Familiar objects ease the stress of sudden moves and strange places.

Parents' state of mind and ability to handle difficult situations are also important to children. Work on yourself first, then reassure your children. Prepare them for losses and let them know that's part of life.

As you start over, assure your children it's OK to grieve at the same time you're getting on with life.

Disaster can be as traumatic for pets as for people. They're going to need comfort and reassurance when the disaster has passed. Walk pets on leashes until they become reoriented.

taking carefully. Avoid over-indulgence.

**Understand** you'll experience stress, but also believe it becomes less intense over time.

**Try for some** non-work exercise about three times a week, like a brisk walk.

**Eat nutritious** food and avoid excessive caffeine, alcohol, tobacco and sugar.

**Talk to someone** you trust about your personal feelings. Survivors often learn to talk to and listen to each other, which helps.

**Think of yourself** as a survivor, not a victim. A survivor

is tough, experienced, active. A victim is passive, helpless.

**Use these** strategies to help yourself: positive self talk, a new perspective on a negative experience, thought stopping, humor, divide the big problem into small problems and plan how to deal with each one.

**Be patient.** Recovery from disaster stress takes time. If you feel you're not healing, ask for professional help.

For more information or assistance in dealing with disaster stress, call the 81st Medical Group's life skills enhancement center, 377-6216.





Map by Gulf Publishing Company

As this map shows, although the Bay St. Louis and Biloxi-Ocean Springs bridges are out, several roads lead from the coastal counties — Hancock, Harrison and Jackson — toward shelter. Officials advise against shelter-

ing in out-of-state coastal cities; travel inland to the north. They suggest the longer people wait to evacuate, the farther they'll have to travel to find accommodations. The yellow areas are Louisiana, left, and Alabama.

# Evacuating? Here are routes to safe harbors

Evacuation routes on the Mississippi Gulf Coast lead from the three coastal counties — Hancock, Harrison and Jackson — toward shelter.

Make hotel reservations before an evacuation order is issued. Be prepared to travel from 150 miles to the evacuation order mileage limit north and away from the storm track. On arrival, call your unit control center, emergency management representative, the Keesler Accountability Team (phone number to be determined) or the Air Force Personnel Center, 1-800-435-9941.

At Keesler, mission-essential personnel and students shelter on base. All others are encouraged to evacuate. An evacuation order may be issued as early as HURCON 3 or as late as HURCON 1, depending on the specific hurricane threat.

Evacuation routes:

## Hancock County

**Mississippi 607** — goes through the NASA preserve and could be taken to Interstate 59.

**Mississippi 43** — begins in Waveland and from which Mississippi 603 branches north of Kiln. Mississippi 603, which links up with Mississippi 53, could also be taken to I-59.

**To reach Keesler's Emergency Intranet from your government computer, go to <https://wwwmil.keesler.af.mil>, click on the image to enter, then click on KENET (on the left side of the page).**

**Interstate 10** — could be taken west to I-59 north at Slidell, La., or to I-12 west to Baton Rouge, La. Officials advise against going to New Orleans to ride out a storm because that city is below sea level and highly susceptible to flooding.

## Harrison County

**U.S. 49** — major evacuation route to the north.

**Mississippi 67** — meets U.S. 49 at Saucier. Can help evacuees avoid traffic congestion on southern end of U.S. 49.

**Mississippi 15** — heads north from the intersection of I-10 and I-110. Meets Mississippi 26, which runs east and west. Going east, Mississippi 26 crosses Mississippi 57, which intersects U.S. 98 north to Hattiesburg, and runs on into Lucedale. There, Mississippi 63 and 613 connect and continue north. U.S. 98 could also be taken north. Mississippi 26 west goes to Wiggins and such northbound routes as U.S. 49, Mississippi 29, and still farther west, I-59.

## Jackson County

**Mississippi 57** — runs north from U.S. Highway 90 about halfway between Ocean Springs and Gautier. Crosses Mississippi 26 and intersects U.S. 98, which goes north to Hattiesburg.

**Mississippi 63** — runs north from Moss Point to Lucedale in George County. Four lanes all the way to U.S. 98 in Lucedale.

**Interstate 10** — runs out of the county to the east toward Mobile. Disaster preparedness officials advise against seeking shelter in Mobile and other coastal cities. However, highways in Alabama going north toward Montgomery, Tuscaloosa and Birmingham, such as I-65, can be reached by going to the outskirts of Mobile.

## Storm names

The National Weather Service near Miami gives names to tropical disturbances with rotating winds of more than 39 mph.

Giving women's names to tropical storms was a common practice in the late 1800s. When the National Weather Service began naming these storms in 1953, it continued the tradition of using female names.

Beginning in 1978 (for Pacific storms) and 1979 (for Atlantic storms), male and female names were alternated by the National Weather Service.

Six lists of names are rotated every six years.

Noteworthy storms have their names retired from the list. These 39 names have been retired: Agnes, Alicia, Allen, Andrew, Anita, Audrey, Betsy, Beulah, Bob, Camille, Carla, Carmen, Carol, Celia, Charley, Cleo, Connie, David, Diane, Donna, Dora, Elena, Eloise, Flora, Frances, Frederic, Gilbert, Gloria, Gracie, Hazel, Hilda, Hugo, Ione, Ivan, Janet, Jeanne, Joan, Katrina and Mitch.

These are the names for tropical storms in the Atlantic in 2006:

**Alberto  
Beryl  
Chris  
Debbi  
Ernesto  
Florence  
Gordon  
Helene  
Isaac  
Joyce  
Kirk  
Leslie  
Michael  
Nadine  
Oscar  
Patty  
Rafael  
Sandy  
Tony  
Valerie  
William**



## Categories of storms

**Category 1** — wind speed 74-95 mph. Damage primarily to shrubbery, trees, foliage, and unanchored mobile homes. Storm surge of 4-5 feet above normal.

**Category 2** — wind speed 96-110 mph. Considerable damage to shrubbery and trees, some trees down, glass broken by flying debris, major damage to exposed mobile homes, roof damage to structures. Storm surge of 6-8 feet above normal.

**Category 3** — wind speed 111-130 mph. Large trees blown down, most signs destroyed, major roof damage, window and door damage, some structural damage to homes, many mobile homes destroyed. Storm surge of 9-12 feet above normal.

**Category 4** — wind speed 131-155 mph. Many trees blown down, all signs damaged or destroyed, extensive window and door damage, complete destruction of many mobile homes. Storm surge of 13-18 feet above normal.

**Category 5** — wind speed greater than 155 mph. Very severe and extensive window and door damage. Complete failure of roof structure on most residences, small structures overturned or destroyed, and complete destruction of mobile homes. Storm surge of 18 or more feet above normal.

## Wind speed conversion chart

Mph	Knots
5.....	4.3
20.....	17.4
25.....	21.7
30.....	26.1
35.....	30.4
40.....	34.7
45.....	39.1
50.....	43.2
55.....	47.8
60.....	52.1
65.....	56.4
70.....	60.8
75.....	65.1
80.....	69.5
90.....	78.0
100.....	86.0
120.....	104.0
140.....	122.0
160.....	139.0

## Coming to terms with language of hurricanes

Hurricanes are tropical cyclones in which winds reach constant speeds of 74 miles per hour or more and blow in a large spiral around a relatively calm center called the eye.

A band of high-velocity winds extends outward 20 or 30 miles from the rim of the eye, and winds may gust to more than 200 miles per hour as they approach it.

Hurricane winds do their share of harm, but they cause the greatest damage when dumping water on the areas over which they move. As storms move across the coastline, they create huge waves and storm tides which may reach 25 feet or more above normal. As winds diminish, the torrential rainfall normally accompanying the hurricane strikes. Drownings are the most common fatalities associated with hurricanes.

The following terms are associated with hurricane activity:

**Tropical cyclone:** The general term for all rotating storms originating over tropical waters.

**Tropical disturbance:** A moving area of thunderstorms in the tropics that maintains its identity for 24 hours or more.

**Tropical depression:** Rotary circulation at surface, highest constant wind speed 38 miles per hour (33 knots).

**Tropical storm:** Distinct rotary circulation, constant wind speed ratings from 39 to 73 miles per hour (34 to 63 knots).

**Gale warnings:** Issued when winds of 39 to 54 miles an hour (34 to 47 knots) are expected.

**Storm warnings:** Issued when winds of 55 to 73 miles an hour (48 to 63 knots) are expected. If a hurricane is expected to strike a coastal area, gale or storm warnings will not usually precede hurricane warnings.

**Hurricane watch:** Issued for a coastal area when there is a threat of hurricane conditions within 24 to 36 hours.

**Hurricane warning:** Issued when hurricane conditions are expected in a specified coastal area in 24 hours or less. Hurricane conditions include winds of 74 miles an hour (64 knots) or more and dangerously high tides and waves. Actions for protection of life and property should begin immediately when the warning is issued.

**Flash flood watch:** A flash flood is possible in the area. Stay alert.

**Flash flood warning:** A flash flood is imminent. Take immediate action.

**Tornados:** Sometimes spawned by hurricanes, these violently rotating columns of air may produce severe damage and casualties. The typical path of a tornado is 50 feet wide and a few miles long, but some have cut a path much larger. If a tornado is reported in your area, a warning will be issued.

**Waterspout:** A tornado over water.

**Typhoon:** The name given to hurricanes that develop west of the international dateline.

When a tropical disturbance gets into high gear, with rotary motion and wind speeds of more than 39 miles per hour, it's considered a tropical storm and receives a name. If wind speeds reach 74 miles per hour or more, it's called a hurricane, but keeps the same name.

This supplement was prepared by Perry Jenifer, Keesler News editor. Contributors: 81st Civil Engineer Squadron, 81st Medical Group, legal and disaster preparedness offices, family support center, Gulf Publishing Co., Harrison County Civil Defense, American Forces Press Service and National Weather Service.

# HURRICANE

## Crisis checklist – don't face storms without it

A checklist can help people collect items to keep on hand to meet their immediate needs in emergency situations — such as hurricanes.

This sample checklist can be especially helpful in making preparations to evacuate out of the path of an approaching hurricane.

### Food

**Dried** and canned products, such as fruit, vegetables, milk, juice, bouillon and soup.

**Grains**, nuts, jerky, snacks, trail mix and granola and high-energy bars.

**Condiments**, herbs and spices.

**Instant** coffee, tea and hot chocolate.

**Manual** can opener.

**Paper** plates, cups, napkins and paper towels.

**Fondue** pots fueled by candles or Sterno fuel can be used indoors; propane and fuel stoves or grills can only be used outdoors.

### Safety

**Flashlights**.

**Two** radios — solar or wind-up and battery powered.

**Extra** batteries.

**Fire** extinguisher.

**Hand** tools.

**Plastic** sheeting, duct tape and towels to seal air gaps.

**Blankets**.

**Survival** manual.

**Area map** with highlighted evacuation routes.

**Waterproof** matches and lighter.

**Candles**.

**Battery-operated** lanterns.

### Health

**First aid** kit.

**Family** or pet medications.

**Vitamins** and minerals.

**Feminine** hygiene supplies.

**Waterless** hand cleaner, pre-moistened towelettes, towels, washcloths and soap.

**Household** chlorine bleach.

### Online resources

<http://www.redcross.org>  
<http://www.iprep.com>  
<http://www.ready.gov>  
<http://www.areasyouprepared.com>  
<http://www.preparedness.com>  
<http://www.fema.gov>  
<http://www.nhc.noaa.gov>  
<http://www.keesler.af.mil>  
<http://www.mdot.state.ms.us>

**Supplies** for babies and the elderly.

**Extra** medications and prescription glasses.

### Water

**Store** one gallon per person per day — two quarts for drinking and two quarts for cooking and cleaning.

**Use** clean, sterilized plastic soda bottles or water containers. Date and store in cool, dark place; rotate often.

**Emergency** indoor water sources include ice cubes, reservoir tank of toilet and hot water heater (with gas or electricity off, open drain at bottom of tank, turn off water intake valve and turn on a hot water faucet. Refill tank before turning gas or electricity back on.)

**To disinfect** water, add two or three drops of household bleach per gallon. Shake well and let it set for 30 minutes before using.

### Car

**Gas tank** should be at least 3/4 full. Place five-gallon can of gas in trunk.

**Road** maps.

**Flashlights** and batteries.

**First aid** kit.

**Cell phone** or walkie-talkies.

**Flares**.

**Jumper** cables.

**Blanket**.

**Compact** tent.

**Light** jacket or rain gear, clothing, socks, shoes and hat.

**Freezer** bags, quart and gallon size.

**Cash**, change and credit cards.

**Pocket-size** survival manual.

**Portable** radio with extra batteries.

**Personal** hygiene supplies — toilet paper, feminine supplies, soap, tissues, paper towels, moist wipes, brush, comb, toothbrush, toothpaste, razor and shampoo.

**Health** supplies — multivitamins, energy bars, dried fruit, nuts, jerky, trail mix, water and bleach.

**Safety** supplies — candle lantern, whistle, waterproof matches, lighter, large piece of aluminum foil for cooking if necessary, string, compass, clothespins and pocket knife.

**Miscellaneous** supplies — pen or pencil, paper, extra batteries, glasses, scissors, sunglasses, deck of cards, needle and thread, book, metal cooking pot.

### Home

**Sanitation** items such as a portable toilet or 5-gallon trash can with lid and plastic liners, odorless sanitation liquid or tablets and toilet paper.

**Eating** and cooking utensils and containers.

**Needle**, thread and safety pins.

**Forty-gallon** garbage can with lid and plastic liners.

**Cash** and credit card.

**Entertainment** items, such as books, toys,

games, crayons, paper, compact disks and deck of cards.

**Change** of clothing and shoes.

**Extra** set of car and house keys.

**Documents** in fireproof safe or airtight plastic container, such as birth and marriage certificates, passports, insurance policies, deeds, recent tax returns, Social Security cards, driver's license, bank accounts, credit card information, stocks, bonds, immunization records and other family information.

### Pets

**To shelter** at home, store low-protein food to reduce stool volume, water, bowls, puppy training pads, garbage bags for refuse, bed, blanket, familiar toys and crate.

**In case** of evacuation, obtain a pet carrier or crate, and collect identification and vaccination records, registration papers, food, water, medications, muzzle and leash.